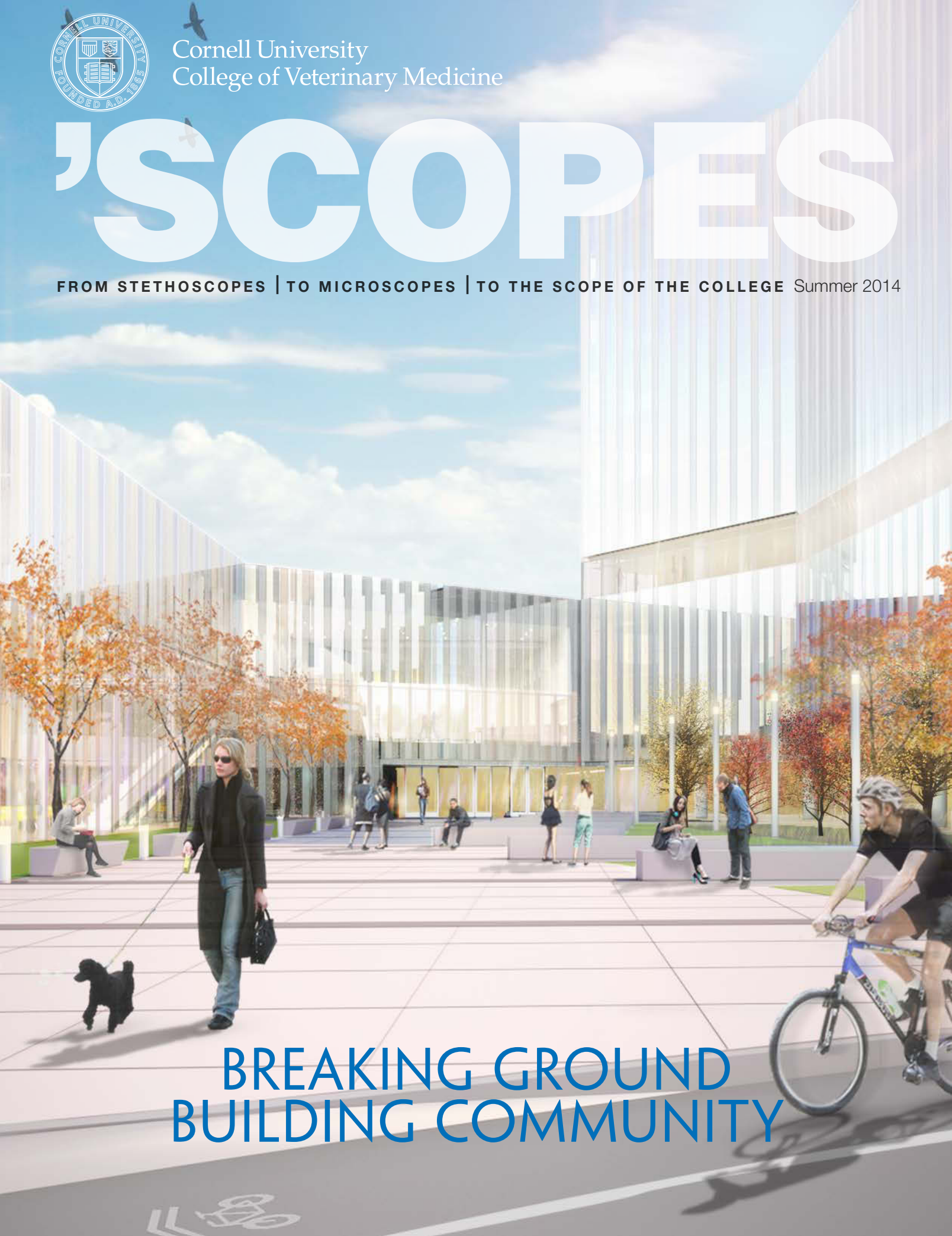
Cornell University
College of Veterinary Medicine

'SCOPES

FROM STETHOSCOPES | TO MICROSCOPES | TO THE SCOPE OF THE COLLEGE Summer 2014



BREAKING GROUND
BUILDING COMMUNITY

Cornell University
College of Veterinary Medicine

S2016 Schurman Hall
College of Veterinary Medicine
Cornell University
Ithaca, NY 14853-6401
Phone: (607) 253-3744
Fax: (607) 253-3740
E-mail: vetfriends@cornell.edu
Website: www.vet.cornell.edu; www.cuvs.org

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'SCOPES JULY 2014

Editor: Carly Hodes
Designer: University Communications/Marketing
Writers: Merry Buckley, Carly Hodes
Photographers: Mike Carroll, Carly Hodes, U Photo, Alexis Wenski-Roberts

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'SCOPES

Summer 2014

TRAINING TOMORROW'S SERVICE DOGS:
Frances and Canon

Dr. Michael I. Kotlikoff,
Austin O. Hooey Dean of Veterinary Medicine

Dean's Message:
Expanding the footprint of Cornell's hands-on curriculum

As the College prepares to break ground on its transformative Capital Project, we are pleased to share more details of this broad planning effort in this issue of 'Scopes. With input from leaders and stakeholders from across the College community, a clear vision of our facilities' future has taken shape.

The project will renovate much of the campus that has not changed since the College moved to its current location in 1957, providing an opportunity for a major upgrade of many of our physical spaces. It will remove tens of thousands of square feet of outdated and abandoned areas of the College such as the old Diagnostic Laboratory, the old necropsy laboratory, and the Poultry Virus Isolation building. Student locker and shower facilities, tutor rooms, the simulation laboratory, and the clinical procedures and learning resource centers will all be redesigned and refreshed by this project. Finally, the project will unify the hospital and teaching areas in a way that will markedly improve interactions, enhance our sense of community, and create a new "heart" for the College.

"...the project will unify the hospital and teaching areas in a way that will markedly improve interactions, enhance our sense of community, and create a new "heart" for the College."

As we prepare for this major upgrade of our educational facilities, I want to take a moment to highlight a unique and innovative aspect of Cornell's veterinary curriculum and the progress that the College has made in the past several years in enhancing clinical experiences throughout the four-year curriculum.

Almost from their first day, Cornell students gain early and broad exposure to hands-on clinical skills in a range of species. In their first year, students move from the anatomy lab to the barns and exam rooms where they participate in two live animal labs per week as part of Block VII. In these labs, the dissection and examination of prepared specimens in anatomy is augmented by physical exams on small and large animals, including sheep, alpacas, dogs, cats, horses, cows, rabbits, and swine.

The fall semester of the first year also finds students participating in the Community Practice Service (CPS), where they get their first exposure to working with real patients and clients by conducting intake interviews. That spring they work on client communication skills through the College's communication training program, in which they are videotaped

while working with clients, participate in peer evaluations of their skills, and work with actors assuming the role of especially difficult clients.

First-year students must engage in clinical experiences with both large and small animals and can choose from opportunities spanning many corners of the profession, including ambulatory clinics, farrier work, milking sessions, and other large animal clinics, as well as small animal opportunities such as the Southside Healthy Pet Clinic, Maddie's® Shelter Medicine Program, the Janet L. Swanson Wildlife Health Center, and the exotics clinic. Students are assigned to barn chores at the Teaching Dairy Barn and the equine barns, attend a heifer management lab, and conduct physical exams. Every Cornell student performs a nerve block and dehorns a calf.

Students spend five labs learning equine physical exams with Cornell's Polo ponies and build more specific equine skills and confidence in the mare and foal labs. In the sheep lab students learn techniques relevant to ovine management, including how to handle and 'tip-up' sheep, jugular venipuncture, hoof trimming, and vaccinations.

Meanwhile, core clinical skills labs teach students basics needed across species, including intramuscular (IM) and subcutaneous (SQ) injections and venipuncture. Non-live surgical skills labs let students learn and practice surgery basics in a low-pressure environment in which they gain the confidence and skill needed to work with live animals.

In their second year students dive deeper into hands-on work in clinical exposure labs organized by species. In the chicken lab students practice bird handling, physical exam, venipuncture, IM injections, and postmortem exams. Working with cows, each student performs an epidural injection, tail vein and jugular venipuncture, ororumen tube passage, balling gun use, and rectal exam. In equine labs students practice limb ultrasounds and flexion tests as part of the equine lameness exam, administer eye and oral medications, and use a direct ophthalmoscope for eye examination.

Small animal labs offer practice conducting blood pressure measurements, eye exams using indirect lenses, IM and SQ injections, venipuncture, and rectal exams with live animals. Other procedures, including urethral catheterization, epidural injection, and bone marrow aspiration are practiced on models and specimens. Students have a second experience working through clinical scenarios with actors as 'simulated clients'. Peers and faculty members offer feedback for improving client communication during these small group exercises.

A required shelter lab brings students to the Tompkins County SPCA in small groups, where they conduct physical exams and discuss issues specific to shelter medicine. Opportunities for more responsibility abound in the extracurricular Southside Healthy Pet Clinics in which students serve the community by offering healthy-pet checkups under the supervision of faculty.

Dr. Holly Putnam, Program Clinician with Maddie's® Shelter Medicine Program (in green), works with a graduate student and animals at the Tompkins County SPCA.

As you can see, by their third year students have gained strong clinical exposure and anticipate their first live surgeries. Further preparation comes in surgical practice labs, in which third-year students learn the three-clamp method of surgery on models before moving to junior surgery lab, where they perform ovariohysterectomy surgery on cats from local shelters under the supervision of a surgical team. Third-year students also work with "RoboJerry" in the Simulation Center, where they learn client communication, emergency medicine, and team dynamics. The elective large animal surgery courses offer further experience in equine, bovine, and ovine surgeries, while collaboration with the Shelter Outreach Service and local shelters offers further opportunities to practice supervised spays and neuters on cats and dogs.

Armed with this array of pre-clinical experience, students are well equipped to enter the hospital to begin their clinical service rotations in the second half of their third year. Throughout their curriculum, further opportunities offer students more exposure in areas of their interest. These include the Smith-Kilborne program in foreign animal diseases, the Veterinary Investigator Program and Cornell's Veterinary Leadership Program for biomedical research, the Summer Dairy Institute and China Dairy Institute, the Expanding Horizons program for international veterinary service projects, the AquaVet program for aquatic animal medicine, the Rural Area Veterinary Services Program, Colic Crew, Foal Watch, CPS Technicians, Imaging Technicians, Milking Crew, and more, as well as dozens of professional clubs.

In addition to instilling competence and confidence, exposure to animal handling, husbandry, and clinical procedures early in the curriculum introduces students to broad areas of the profession at a formative time in their education and provokes the curiosity that motivates pre-clinical learning. The curriculum is the product of the thoughtful input and enormous effort of dozens of faculty and technicians and truly distinguishes Cornell's training.

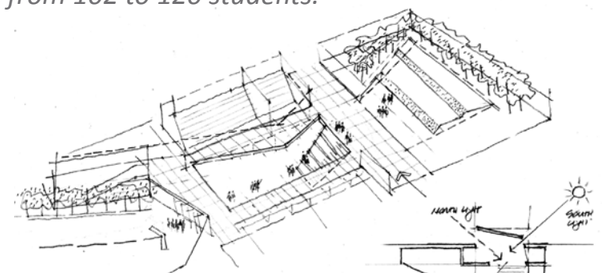
I am so pleased that after all of our planning, we will kick off the College's Capital Project this fall, which will further improve our ability to prepare tomorrow's veterinarians to meet the challenges of the 21st century, providing facilities that reflect the quality of the College's innovative curriculum, as well as that of our dedicated faculty, staff, and students.

PLACES & SPACES

Envisioning the College's future facilities

By Carly Hodes

This year the College of Veterinary Medicine will begin its $63 million Capital Project, starting transformative renovations that will encompass the most significant improvement to teaching spaces the College has seen in decades. Over the next three years the College will upgrade and expand its infrastructure and teaching facilities to accommodate increasing pre-clinical class sizes from 102 to 120 students.



Takoda's Run, a multi-purpose atrium named with a recent gift, will serve as the heart of the College.

Plans call for demolishing 68,000 square feet of existing space, replacing it with 65,000 square feet of new space, and renovating 33,000 square feet. Construction, which begins this fall, will conclude in the fall of 2017. As the pre-clinical class size expands, the College will phase out its current clinical training of fourth-year students from other schools. When completed, it will clinically train the same number of students as currently, but the Class of 2021 will have 120 students that have done their pre-clinical and clinical training at Cornell.

In addition to updating aging teaching facilities, the project will create new gathering spaces for the College community and support the growing needs of a variety of continuing education activities, including the annual veterinary conference held by the College and the New York State Veterinary Medical Society that draws around 700 people each year and the College's Open House, which draws more than 6,000 visitors annually.

"One of the main goals we had in mind during planning was to increase the flexibility of our spaces so we can get maximum benefit in different situations, from small classes to huge conferences," said Dr. Katherine Edmondson, assistant dean of learning and instruction and a member of the committee that worked to envision the new designs. "We have also strived to design facilities that unite major teaching, clinical, and research spaces in a way that enhances the sense of community and collaboration opportunities among students, faculty, and staff."

Some spaces will remain untouched, including the College's three existing lecture halls. The dry and wet labs, Clinical Skills lab, and simulation center will be renovated to accommodate larger numbers. In other facilities, the project calls for more significant renovation and new construction.

Takoda's Run, a multi-purpose atrium named with a recent gift, will serve as the heart of the College where communities convene for events, performing arts, social gatherings, or studying. The space is designed to capture natural light, connect the front and back courtyards, and provide alcoves for studying alone or in groups.

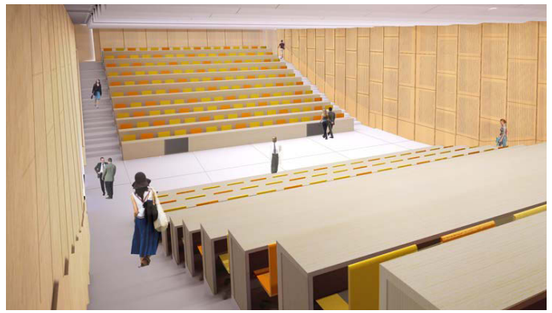
A new dining area will be larger than the current cafeteria, holding 250 people, and will sit in a more central location, facilitating greater access and interaction among people who work in different areas of the College. An adjacent multipurpose room will serve as a dining area that can be configured for special dinners and events and will facilitate food availability beyond normal work hours.

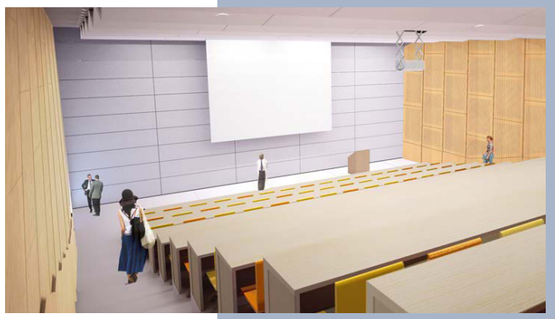
Eighteen new tutorial rooms of various sizes will be able to accommodate groups large and small, catering more comfortably to varying course enrollment numbers. They will feature large wireless flat panel displays in addition to traditional whiteboards. Students will have easy access to power sources and ports for electronic devices to assist learning and increased access to wireless internet connectivity, which will be enhanced throughout the College.

Two new medium-sized classrooms will hold sixty people each and house an array of flexible mobile furniture that can be configured to meet various needs.

Two new twin lecture halls will each hold 150 people. Spanning two floors, they will angle toward each other and a moveable wall between them will be able to open the space into a unified amphitheater that holds 300 people. This configuration will be particularly useful for hosting performances, conferences, and continuing education programs, effectively doubling current capacity for such programming.

Two new lecture halls will angle toward each other with a moveable wall between them, and will be able to open the space into a unified amphitheater that holds 300 people.





The new Flower-Sprecher Library and the eLearning Center

Located on the third floor of the Administration and Learning Resources Building, the dean's suite occupies a central location for the offices responsible for the administration of the College.

The new Flower-Sprecher Library and the eLearning Center will sit under a floor of administrative offices in a three-story building located where the James Law Auditorium currently stands. The two related learning spaces will connect via a staircase.

New locker rooms will be built in the old necropsy area. Skylights will provide these two large spaces with natural light. The expanded space offers students ample room to move, change, shower, and store their belongings in large lockers with space to store boots and other gear underneath.

The new center courtyard will provide more space to take advantage of good weather. It will feature a plaza that can house small classes, student awards receptions, and other events. Rain gardens and a green roof will creatively handle water run-off. The Muenscher Poisonous Plants Garden will be moved but maintained as a teaching garden.

The project will begin with a renovation phase planned in December 2014. Teaching activities traditionally held in the affected areas will relocate to the old diagnostic building during the anticipated year it will take to remodel.

The College has partnered with the Weiss/Manfredi architectural firm of New York City to design the new spaces and renovations. The project is predominantly funded by New York State with the remainder coming from private gifts and other College resources.

The new center courtyard will feature a plaza that can house small classes, student awards receptions, and other events.

A new dining area will be larger than the current cafeteria, holding 250 people, and will sit in a more central location.

New locker rooms will be built where the old necropsy area used to be. Skylights will provide these two large spaces with natural light.

"Veterinary education is multi-sensorial. You need to listen to lung and heart sounds, touch animals to understand pain and inflammation, watch behavior, and read records and test results. The more senses learning materials can incorporate, the more engaged in learning our students become."

—Dr. Julia Felippe, director of veterinary curriculum

Where technology and teaching converge

By Carly Hodes

What will a Cornell veterinary student's experience look like in the next five or ten years? While some staples of veterinary education will always remain, other aspects are evolving in line with changing technologies and student needs.

Technology already augments the current curriculum. For example, the simulation center uses programmable robotic pets to teach emergency skills, while videos of students' mock-client-interactions offer opportunities to view and improve communications skills.

The Capital Project will take the convergence of technology and teaching to the next level, anticipating future enhancements and equipping the College with the resources and flexible spaces needed to adapt to new technologies and ways of learning. The project will update class and tutor rooms with wireless screens to serve as electronic blackboards, and the new medium-sized classrooms will include webcams and videoconferencing capabilities. The project also involves updating the College's wireless infrastructure and providing more places for students and faculty to plug in electronics and interact.

"We're envisioning a paperless environment in the future," said Dr. Katherine Edmondson, assistant dean for learning and instruction. "Right now all our case materials are delivered in big three-ring binders and reams of handouts for lectures. We're looking at other ways to deliver materials and improve how students learn from them."

Leaving paper behind, future digital course materials might have sounds, videos, animations, and links embedded to supplement learning and offer further resources.

"Veterinary education is multi-sensorial," said Dr. Julia Felippe, the College's director of veterinary curriculum. "You need to listen to lung and heart sounds, touch animals to understand pain and inflammation, watch behavior, and read records and test results. The more senses learning materials can incorporate, the more engaged in learning our students become."

Those involved with curricular decisions are discussing the possibility of requiring or providing incoming students with an electronic device, such as a laptop or tablet, on which curriculum content could be loaded. They are also discussing with the College's anatomists how technology could play a future role in dissection labs after the gross anatomy lab is renovated. Meanwhile, methods of conducting assessments and exams may evolve as class sizes expand.

"Assessing certain clinical skills and competencies requires lots of individual attention," said Dr. Edmondson. "Giving exams to a larger numbers of students may require new methods. We may also be hiring additional faculty to support teaching larger numbers of students."

Beyond enhancing learning styles, the evolution of the College's teaching facilities aims to facilitate greater community engagement.

"We hope the renovations will create more opportunities for interaction," said Dr. Felippe. "Our students undergo rigorous training that can be stressful, and it's important that they can feel connected to others. The placement of the atrium and cafeteria will create more dynamics between students at different stages, especially between the teaching side and hospital side of the College. With 24/7 access to the complex, more open and central facilities, and growing access to technology, we hope students will find ways to make the new space their own to enhance their learning and sense of community."

Volunteers from across the College train tomorrow's service dogs

By Carly Hodes

It takes alert aplomb, disciplined maturity, patient empathy, and at times, vigilant leadership— the ability to read and react to new potentially dangerous situations while protecting your charge. These qualities could well describe the ideal dog owner, but they also serve as essential requirements for a special kind of dog.

People from different walks of life across the College have assumed the challenge of instilling these qualities into puppies training to become service dogs. College faculty, staff, and veterinary students form a growing network of volunteers across Cornell who raise puppies for Guiding Eyes for the Blind (GEB). This internationally accredited nonprofit breeds and trains service dogs to enrich the lives of visually impaired people by providing the freedom to travel safely.

"Our goal is to raise confident, well-mannered pups," said Frances Chen '16, a DVM/PhD combined degree student who has raised guide dog puppies since middle school, helped kindle the nation's second undergraduate club for GEB volunteers at Cornell, and recently started a second club for veterinary students at the College. "It's a time-consuming responsibility for students, who are highly motivated and ambitious in many aspects of their DVM education, to become certified puppy sitters. But feedback I've gotten from peers has been encouraging. They are learning about canine behavior and the roles that veterinarians can play in nonprofit service dog organizations while contributing to the upbringing of dogs that are invaluable to the people they end up helping."

Since starting the College's chapter in Spring 2013, Chen has trained seven veterinary students as puppy sitters, adding to the ranks of an existing network of certified sitters and raisers at the College. It includes a diverse range of people, from incoming graduate student Alyssa Wetterwau and research scientist Dr. Kim Holloway to veterinary technician Deb Watrous and Sr. Research Associate Dr. Rod Getchell, PhD '02, the club's faculty advisor.

"I've owned many dogs from reputable breeders, but there's nothing like a GEB puppy," said Watrous. "Their socialization starts at day one and their skills are already advanced by the time we raisers get them. It's our responsibility to teach them manners and get them out in different scenarios. It's important for them to be flexible and adaptable, see different sights, hear different sounds, and learn to properly meet people."

"It's important for them to be flexible and adaptable, see different sights, hear different sounds, and learn to properly meet people."

Raisers get puppies at eight weeks of age and return them to GEB at 16-18 months. During that time they are responsible for the puppies' health and house and people manners, as well as for following a training curriculum provided through weekly classes offered by regional GEB instructors. When the puppies return to GEB, they undergo behavioral qualification testing and, if they pass, six months of official guide dog training before being matched with their visually impaired partners.

The Cornell undergraduate club Chen helped start in 2009 has blossomed into a growing organization of more than 150 members, hosting as many as 17 dogs on campus at any given day. Its president, incoming veterinary student Alyssa Cornelius '18, is bringing Cornell's model to other campuses across the region, creating startup guides for other leaders and consulting for burgeoning campus clubs.

"The organizations Frances started at Cornell have been ground-breakers," said Cornelius. "I was ecstatic when I learned of all the GEB training activity at the College. If I look back at my undergrad career, this is the one thing I'd define it by. I found my passion in GEB. To be able to continue that in vet school is exciting. This is a great environment for raising service dogs."

For an exclusive video of Chen training GEB puppies at the College, visit: bit.ly/CornellGEBDogs

"Our goal is to raise confident, well-mannered pups. It's a time-consuming responsibility for students, who are highly motivated and ambitious in many aspects of their DVM education, to become certified puppy sitters. But feedback I've gotten from peers has been encouraging. They are learning about canine behavior and the roles that veterinarians can play in nonprofit service dog organizations while contributing to the upbringing of dogs that are invaluable to the people they end up helping."

—Frances Chen '16, a DVM/PhD

| SERVICE

Started in 2009 > More than 150 Members > Puppies start at 8 weeks > Return puppies at 16–18 weeks > Each day, more than 17 dogs on campus

$10 MILLION GRANT

ESTABLISHES NEW CORNELL CENTER FOR REPRODUCTIVE GENOMICS

CRG Director Dr. Paula Cohen, professor of genetics at the College of Veterinary Medicine

By Carly Hodes

"Humans face higher rates of reproductive problems than most other species. Since eggs and sperm will give rise to the next generation, it's critical to understand how aberrations in them occur. Our center aims to learn how and why these problems happen, why they arise in humans more than in other species, what small RNAs have to do with it, and ultimately what we can do about it."

CRG Director Dr. Paula Cohen,
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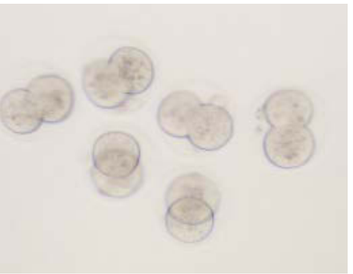


Healthy newly fertilized eggs are used to understand how chromosomes segregate during the meiotic cell division.

Irrepressible as ever, human reproduction still faces challenges every step of the way. With a new five-year $10 million Specialized Research Center (U54) grant from the National Institutes of Health (NIH), scientists across Cornell's departments and campuses will collaborate to tackle the roots of reproductive issues and train the next generation of reproduction scientists.

With this grant, Cornell has established a new Center for Reproductive Genomics (CRG), joining a national network of similar centers connecting basic and clinical reproductive scientists. Starting April 2014, Cornell's CRG will investigate how a recently discovered class of molecule called small RNA influences meiotic errors—the genetic basis for reproductive disorders.

The team will work to translate basic research discoveries into clinical innovations to help diagnose and treat reproductive disorders such as infertility and birth defects.

"Humans face higher rates of reproductive problems than most other species," said CRG Director Dr. Paula Cohen, professor of genetics at the College of Veterinary Medicine. "My lab focuses on human eggs and sperm, which are prone to chromosomal abnormalities causing birth defects such as Down and Klinefelter's syndromes. Other CRG researchers work on issues with sperm, or basic cell biology influencing reproduction. Since eggs and sperm will give rise to the next generation, it's critical to understand how aberrations in them occur. Our center aims to learn how and why these problems happen, why they arise in humans more than in other species, what small RNAs have to do with it, and ultimately what we can do about it."

DNA in genes encodes RNA, which usually makes proteins. However, about 15 years ago investigators identified smaller RNAs that did not make proteins. Instead, these small non-coding RNAs interfere with the DNA-to-RNA-to-protein production line, regulating whether and how genes are expressed. Our cells are packed with them, but germ cells – eggs and sperm – have unique small RNAs that other cells lack.

"Our center studies how these small RNAs influence egg and sperm production and how this affects human fertility," said Dr. Cohen. "We will take these questions from the lab all the way to human medicine, conducting basic biology research in Ithaca and translating it at Weill Cornell Medical College,

CRG Director Dr. Paula Cohen, in her lab with students

Early mouse embryos before implantation into the uterus.

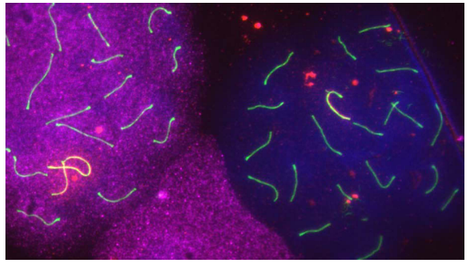
where doctors see patients with chromosomal abnormalities and fertility issues.'"

The CRG will conduct four major research projects. Dr. Cohen will explore the role of a family of proteins that bind small RNA during the production of germ cells. Dr. Andrew Grimson, assistant professor of molecular biology and genetics in the College of Arts and Sciences, will explore the timing and targets of small RNA actions during germ cell formation. Dr. Darius Paduch, associate professor of urology and reproductive medicine at Weill, will study the roles and expression of small RNAs in human male germ cells and how testicular small RNAs differ in men with different types of infertility. Dr. John Schimenti, professor of genetics at the College of Veterinary Medicine, will develop technologies to investigate the function and targets of virtually all conserved small RNA that are expressed during sperm production. Collectively, these projects will paint a broad picture of small RNA's role in reproduction.

Renowned Weill urologist Dr. Peter Schlegel, co-director of the CRG, will oversee the CRG's Outreach Core, which will extend the CRG's impact. The Outreach Core will provide bimonthly seminars to the general public on different aspects of reproductive health, work with clinicians outside the CRG and Cornell who have questions about small RNA, and provide means for residents to train at the Center to learn techniques for investigating small RNA.

Dr. Jen Grenier, director of Cornell's new RNA Sequencing Core funded by the grant, will head the core facility that will sequence the small RNAs. This full service will be made available campus-wide, including investigators not associated with the CRG.

The CRG is funded by the National Institute of Child Health and Human Development's (NICHD) Specialized Cooperative Centers Program in Reproduction and Infertility Research (SCCPIR), a branch of the NIH.



Chromosomes from germ cells undergoing meiosis. The bright yellow chromosomes are the X and Y chromosomes, which do not pair completely because they are not identical, while the green stain highlights fully paired non-sex chromosomes.

Gift fuels basic disease research

By Carly Hodes

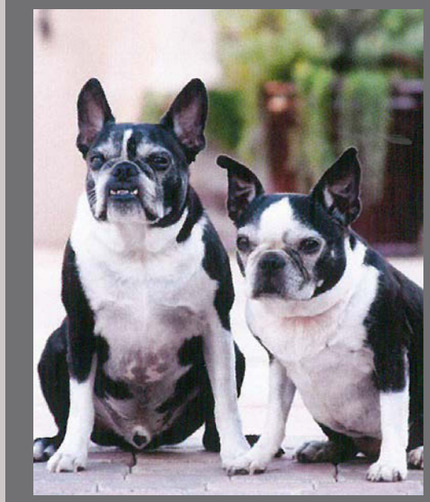
Memorial Gift Program kindles longstanding relationship with Cornell's Baker Institute

For Robert and Mary Jane Engman, it all started 19 years ago on Mrs. Engman's birthday on the way back to work from a lovely lunch. Mrs. Engman's scream immediately shocked her husband into the realization that a Boston terrier had wandered into a busy intersection.

"Pulling over the car and coaxing him into the back seat was one of the better things I have done in my life," said Mr. Engman. "No one claimed him, so we brought him into Mary Jane's office, where he lay in a little bed looking very depressed as I argued that it would be too difficult for us to keep him since we work every day. When I saw the expression on Mary Jane's face it was obvious he'd just have to come to work with us."

They named the dog Mr. Emerson and soon he became closely bonded to Mrs. Engman; a high-tech electronics firm had a new employee. Years later, when Mr. Emerson developed heart trouble, the Engmans brought him to Dr. Keith Richter '78. Under Dr. Richter's care, the Engmans enjoyed two more happy years with Mr. Emerson.

"When Mr. Emerson finally passed away, we were really touched to learn Dr. Richter made a contribution to Cornell's Baker Institute in Mr. Emerson's name through the Memorial Gift Program," said Mr. Engman. "We've contributed to Baker ever since, growing to learn more about the organization and what it does to advance animal health. It's a cause we really believe in—we've always loved dogs and cats and had several with diseases that have been helped along by research. If you've ever had a dog that's ill and you can get help for it, it's because research has been done at places like Baker."



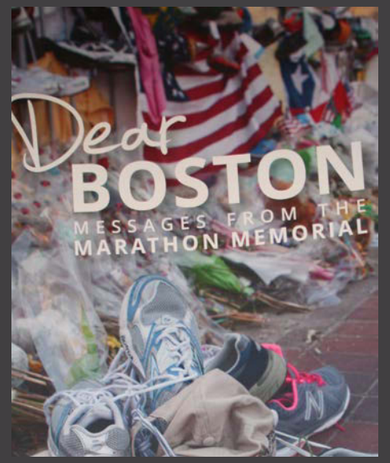
"If you've ever had a dog that's ill and you can get help for it, it's because research has been done at places like Baker."

Over the years the Engmans began to get to know more not only about Baker's mission, but its people. They became friends with Dr. Douglas Antczak, Baker's director at the time, from whom they learned more about Baker's work and what the Institute hoped to accomplish through research.

"Cornell is a good school, we like the people we've met there and know they do a great job," said Mr. Engman. "They do basic research, which we believe is one of the best ways to address health problems. We need to understand how things work on a cellular level. Every step along the way toward this understanding is a step toward making pets' lives easier."

For several years the Engmans have been investing in animal health by giving to places that conduct basic research. After years of giving to Baker, they have expanded their impact further with a gift of $250,000.

Of this, $125,000 will support the Wilpon Challenge, a drive to raise $1 million in matching funds to endow a research professorship in cancer biology at the Baker Institute. Held by Dr. Scott Coonrod since its inception, this position was started in 2008 when the Wilpon Family Foundation established the research professorship, setting the stage for others to contribute toward permanently endowing the position to support groundbreaking cancer research. The other $125,000 will be designated as unrestricted with a preference for supporting incoming faculty starting up new research labs.



Boston Marathon runner lends a hand to the Feline Health Center

In honor of Cincy, and in the hopes of helping cats around the world, Bowman teamed up with the Cornell Feline Health Center and encouraged friends and family who wanted to support his run to make donations designated for FIP research through the Center's Research Grants Program.

By Merry Buckley

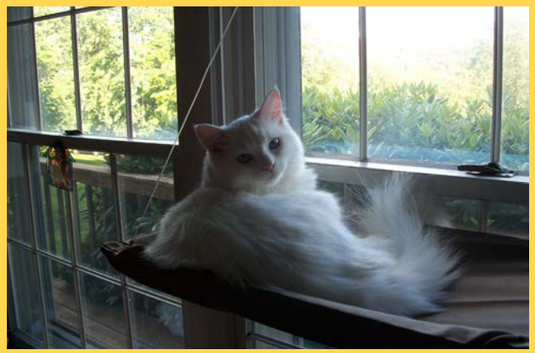
Scott Bowman came to support the Cornell Feline Health Center because of a sad experience, but he's turned that unhappy story around. When Bowman's beloved cat, Cincy, died of feline infectious peritonitis (FIP) earlier this year, Bowman selected the Feline Health Center as his charitable cause when running the Boston Marathon. By the time he crossed the finish line on April 21, Bowman had helped to raise $4,200 for FIP research.

On race day, Bowman wore a shirt emblazoned with a picture of Cincy. He says that although the marathon was exciting, the heat of the day, sunburn, and his sore knees made the race a difficult one. There were times when he wanted to quit, but he kept going.

"I looked down at my shirt and saw the picture of Cincy. I thought of all the people who were supporting me, and I thought of Cincy, and I wasn't going to let them down," said Bowman. "The atmosphere along the course was thrilling. Many people lined the streets to cheer for the runners. You could tell there was a lot more security there than last year, but we never felt we were in any danger."

The scene was different on race day in 2013. On that day, Bowman was in the crowd at the finish line, waiting for his wife to finish the race, when the first of two bombs exploded only 24 feet from where he stood. The bombs killed three spectators and injured 264 others, including Bowman, who suffers partial hearing loss from the explosion. The Boston Athletic Association, which administers the Boston Marathon, invited Bowman to participate in this year's race and waived the registration fee and qualifying time requirement. An avid marathon runner, Bowman took up the challenge and began training.

Then his young cat, Cincy, got sick in January. A blue-eyed ragdoll, Cincy exhibited mild respiratory symptoms at first, but his condition quickly grew more desperate. Less than three weeks after his symptoms began, a veterinarian told Bowman and his wife, Aileen Bowman, that Cincy most likely had FIP, a viral disease that is almost always fatal. Soon after they got the diagnosis, the Bowmans made the decision to end Cincy's suffering and had him put down.



In honor of Cincy, and in the hope of helping cats around the world, Bowman teamed up with the Cornell Feline Health Center and encouraged friends and family who wanted to support his run to make donations designated for FIP research through the Center's Research Grants Program. Research grants from the Feline Health Center offer vital financial support to Cornell scientists and veterinarians investigating FIP and other issues that affect feline health.

The Cornell Feline Health Center strives to provide help for cats worldwide today while also promoting the hope for improved feline health tomorrow.

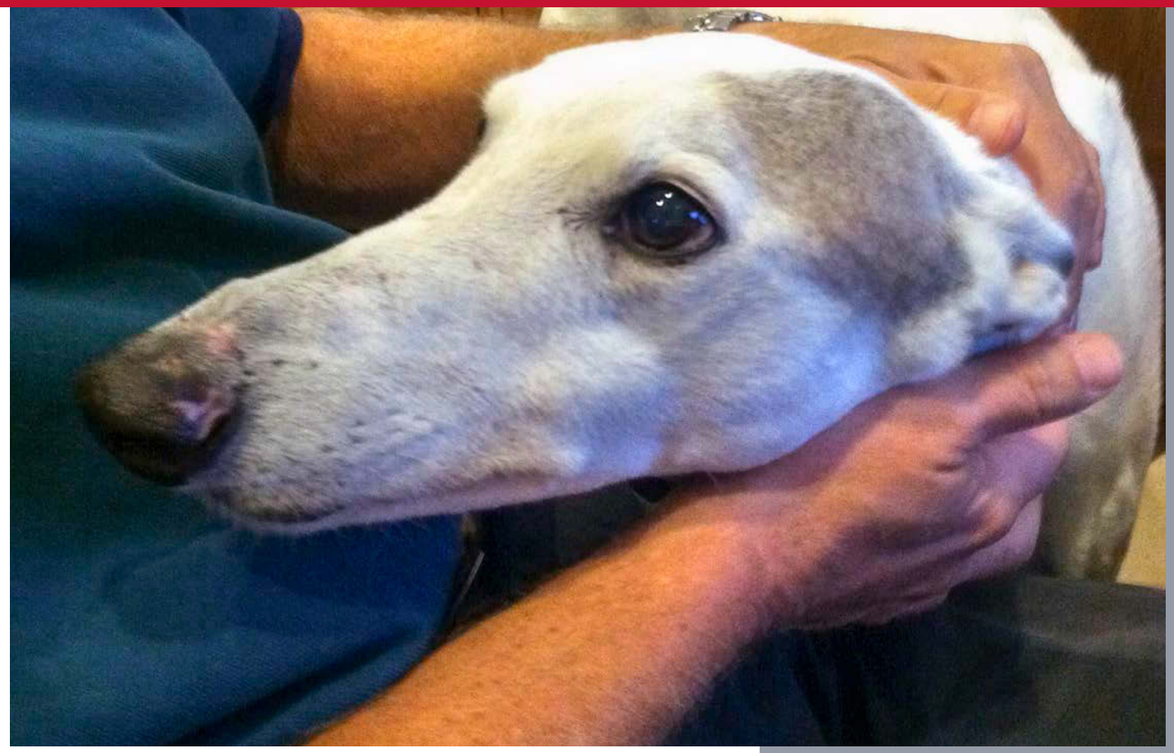
If you would like to support the work of the Cornell Feline Health Center, you can donate online by visiting the "Giving" page of the College of Veterinary Medicine's website: www.vet.cornell.edu/FHC/giving/.

College's new atrium named

Takoda's Run

after rescued greyhound

By Carly Hodes



Recently inspired by the Capital Project and the vision of the College's future it represents, Janet Swanson has given a gift to help make the new building a reality.

Takoda's racing career ended abruptly when the young greyhound broke his leg. A greyhound rescue group took him in, and that's where Takoda met Janet Swanson.

Many animals who have met Swanson have found their lives the better for it, and Takoda was no exception. She brought him home, where he joined a whole family of rescued animals, including another dog, three cats, and several birds, all of whom had once been in situations similar to his.

Deeply involved with animals, Swanson has rescued many over her lifetime. She serves on the National Leadership Advisory Council of the American Humane Association board and as a volunteer in its Red Star rescue team, which provides emergency rescue relief across the country where animals are in need.

Her love of animals first brought Swanson to the Cornell University College of Veterinary Medicine when her husband, John Swanson, came to visit his alma mater at Cornell's College of Engineering. She took a tour of Cornell's Hospital for Animals (CUHA), beginning her longstanding relationship with the College that deepened as she met more of its people and learned of what the College was accomplishing for animal health.

She has since bestowed the College with generous gifts to help realize its mission. The renovations and endowment she funded for what is now the Janet L. Swanson Wildlife Health Center continue to help the College's program dedicated to healing wildlife. A full imaging suite she donated to the hospital helps diagnose problems in many CUHA patients. Her endowments for a faculty position and residency for Maddie's® Shelter Medicine Program at Cornell enable the College to help shelter animals across the region. A recent scholarship she funded enables students interested in exotic avian medicine to pursue their aspirations.

Recently inspired by the Capital Project and the vision of the College's future it represents, Swanson has given a $5 million gift to help make the new buildings a reality. Honoring the tenacity of her Greyhound friend, the new atrium space will be named Takoda's Run.

When the College's renovations are complete, its communities will converge in Takoda's Run, which will serve as the heart of the College. This multi-purpose space will effectively capture natural light, host performing arts, connect the front and back courtyards, and provide ample spaces for independent or group study and socializing.

"I went to the architects' presentation last year and thought the plans were terrific," said Swanson. "The atrium seemed like it would be a beautiful space. We have a cat named Ezra, inspired by Cornell and the College's work with animals, so it was a toss-up between naming the space Ezra's Litterbox or Takoda's Run. I thought the latter seemed best. I hope the students enjoy the new space, whether for studying or relaxation. The whole concept strikes me as a terrific gathering place. I plan on spending time there myself. I'm sure it will be an amazing success."

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—Janet Swanson







Funding the Future

There are numerous opportunities to contribute to the College's Veterinary Education Center and invest in the learning and instruction it facilitates. For more information on how gifts may be recognized by named spaces in the new facility, please contact Amy Robinson in the College of Veterinary Medicine Development office at amy.robinson@cornell.edu or 607-253-3742.

VETERINARY EDUCATION CENTER — $20,000,000
This newly constructed building will serve as the primary teaching and learning space for pre-clinical education and continuing education and will include the atrium, Flower-Sprecher Library, lecture halls and classrooms, dining area, modular resources center and administrative offices.

ADMINISTRATION & LEARNING RESOURCES BUILDING — $7,000,000
This wing encompasses three stories, including the dean's suite, Flower-Sprecher Library and the modular resource center.

ATRIUM — $5,000,000
No longer available

With ample natural light, this primary gathering area will encourage collaboration, facilitate learning, and serve as the College's primary event space.

DEAN'S SUITE — $2,000,000
Located on the third floor of the Administration and Learning Resources Building, the dean's suite occupies a central location for the offices responsible for the administration of the College.

LECTURE HALLS (2) — $1,500,000
Two tiered lecture halls will serve as a primary teaching space and venue for continuing education and public lectures.

ENTRY COURTYARD — $1,000,000
The College's "front door," the entry courtyard will serve as the eastern-most anchor for the University and connect the College to Cornell's campus.

GROSS ANATOMY LAB — $1,000,000
Remodeling the College's existing gross anatomy wet lab, this will accommodate more students practicing anatomy work as well as surgical skills.

CLINICAL SKILLS LAB — $1,000,000
Set up like a surgical suite, this space is dedicated to student use in practicing basic surgical procedures.

MODULAR RESOURCE CENTER — $850,000
In this space students work at learning stations with hands-on, visual exhibits. In each module, three-dimensional models, radiographs, slides, and plastinated or wet specimens are presented.

DINING AND MEETING ROOM — $750,000
In a highly visible area with the most visitor traffic per day, the College's primary dining space may also serve as a large conference room.

INTERIOR COURTYARD — $750,000
This courtyard will provide outdoor space for study, recreation and programmed events.

SIMULATION LAB — $500,000
Pending

Space dedicated exclusively to simulation-based learning. It occupies a four-room suite, including two fully equipped exam rooms for live video-feed observation and debriefing and space for storage and development of new models.

CLASSROOMS (2) — $250,000
Located at the heart of the Veterinary Education Center, these flexible classroom spaces are designed to accommodate smaller 60-seat classes.

CONFERENCE ROOM — $250,000
A highly visible space located directly off the atrium, this space will facilitate larger group meetings, especially with multiple outside collaborators and organizations.

MULTIPURPOSE ROOM — $250,000
A space open to internal and external groups, as well as University-sponsored events, this space is flexible for multiple purposes, such as meetings, registrations, and conferences.

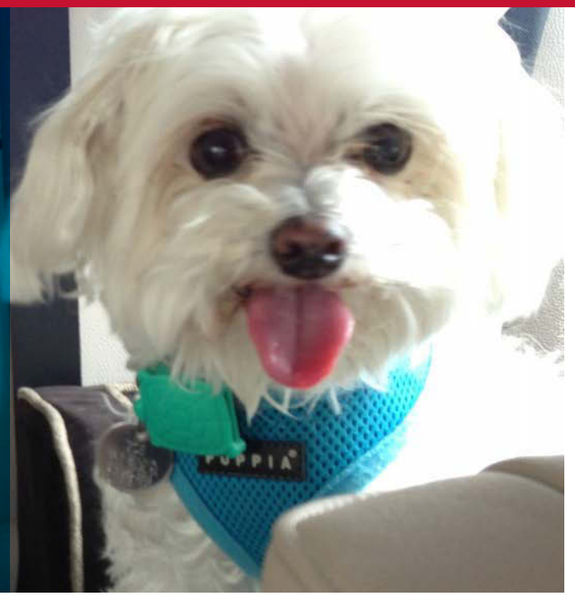
DEAN'S OFFICE/CONFERENCE ROOM — $150,000
Located adjacent to the dean's suite in the Administration and Learning Resources Building, this is an important gathering space for smaller meetings — primarily internal groups and some outside visitors.

TUTORIAL ROOMS (3) — $125,000
Small group teaching and study spaces are central to the College's innovative case-based curriculum.

TUTORIAL ROOMS (15) — $75,000
Small group teaching and study spaces are central to the College's innovative case-based curriculum.

Little dog's BIG recovery sparks gift to Annual Fund

By Carly Hodes



When Jennifer Wade met her future husband, Peter Wade, he came as a package deal complete with two little dogs. She bonded especially with Zoe, a white Maltese whose small frame housed a huge personality. The six-pound pooch had a powerful presence that filled the room with light.

But Zoe's gusto got her in trouble one day in March 2012 when a lamb treat gobbled down in haste lodged in her esophagus. Following the crisis, the life-giving care she received from a Cornell alumna and specialists at Cornell University Veterinary Specialists (CUVS) inspired the Wades to donate $50,000 to the College of Veterinary Medicine's Annual Fund.

"Zoe hides her pain, but when we noticed she wasn't eating we went to our vet, Dr. Michele Lamothe '90 in Norwalk, Conn.," said Wade. "She did an x-ray that showed an obstruction in Zoe's throat. We were advised to take Zoe to CUVS."

At CUVS, a veterinary team led by Dr. Marnin Forman performed an endoscopy to find and remove the foreign object. But the situation complicated when they noticed the treat had torn her esophagus. Closing it with a risky surgery was the only hope for saving Zoe. CUVS staff called the Wades with an update and explained the odds she faced if they went ahead with surgery.

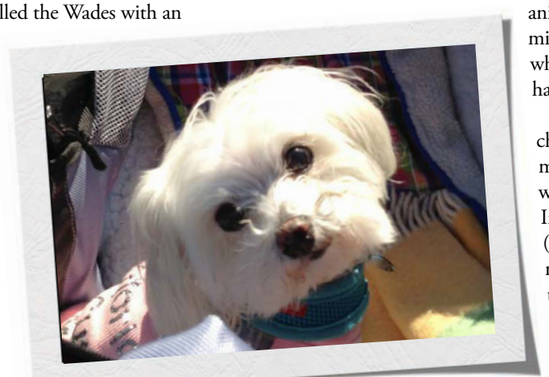
"They warned us the surgery would be risky and even if she made it through, the chances of recovery were about fifty-fifty," said Wade. "She was a geriatric dog at 13.5 years old, but we wanted to do all we could for her."

The surgery lasted six hours, and CUVS medical director Dr. Susan Hackner got involved postoperatively to help get Zoe through. Zoe recovered in the hospital for the next two weeks, getting nutrients through a feeding tube. Meanwhile Dr. Lamothe consulted with the CUVS doctors and checked in with the Wades daily.

"We could call any time of day to see how she was doing and get a thorough report," said Wade. "There was a special room where we could visit her quietly while she recovered. The facility and care were beyond anything we'd imagined."

Zoe returned home, where her family helped her back to health using a feeding tube for the next six weeks before she could eat on her own and ultimately make a complete recovery.

"You'd never have known anything like this happened to her; she's as bouncy as she was when I met her at age six, and she's almost 16," said Wade. "Those kinds of crises can kill an animal— her healing was truly a miracle. CUVS is really a place where miracles like that can happen."



Since then much has changed for the Wades. They moved to Los Angeles, Calif., where Zoe later developed Inflammatory Bowel Disease (IBD). When a veterinarian recommended an endoscopy, they were worried and reached out to Hackner for guidance. Hackner reviewed Zoe's developments and continued giving them guidance and reassurance in pursuing Zoe's care.

Grateful for their ability to pursue Zoe's care, the Wades wanted to give back to help others in similar situations and donated to Cornell College of Veterinary Medicine's Annual Fund.

"We felt that by giving the money to Cornell we're helping to further the field of veterinary medicine," said Wade. "We gave an undesignated gift because we felt that they'd know where the need would be strongest, whether patient aid or scholarships or something else. These vets saved Zoe's life and helped keep our family together. We hope our gift can help Cornell educate more Dr. Lamothes and Dr. Hackners and Dr. Formans down the road."

"Being able to provide benefit to pets like Zoe and support to their families is an honor that I appreciate every day," said Hackner. "That families like the Wades share their generosity to provide help to others is truly incredible. It is a wonderful tribute to Zoe and her gift to other pets."

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Starr Foundation's creation of two professorships

In April, the College of Veterinary Medicine celebrated the Starr Foundation's creation of two professorships, the Maurice R. and Corinne P. Greenberg Professorship and the C.V. Starr Professorship, which will advance research and treatment of cancer and other complex diseases in both animals and humans. The gathering included Bob Harrison, chairman of the Board of Trustees; Starr Foundation executives Florence Davis, president, Corinne Greenberg, director, and Maurice (Hank) Greenberg, chairman; Dr. David Skorton, president; and Dr. Michael Kotlikoff, the Austin O. Hooey Dean of Veterinary Medicine.

Reunion 2014

What a gorgeous weekend in Ithaca for Reunion 2014! President David Skorton and Dean Michael Kotlikoff welcomed alumni and guests to Cornell during the DVM Welcome Reception. Alumni and guests participated in tours of the Animal Health Diagnostic Laboratory, Teaching Dairy Barn, and the Cornell University Hospital for Animals. They also attended the Friday evening DVM BBQ on the Ag Quad, the State of the College address, a presentation on DVM Admissions and how to advise pre-vets, a special lecture by Dr. Charlie Berger '64 entitled "From the Big Bang to Chihuahuas," and the always popular Class Dinners.

The Class of 1964 won the Dean's Cup, the award to the class out of school 50 years or fewer with the highest percent of the class making a gift to the College. Seventy-five percent of the Class of 1964 made a gift! The class giving effort was led by Drs. Leo Dube, Joel Edwards, and Neil MacKenzie, and further incentive was provided by an anonymous donor who pledged $1,000 for every five classmates making a gift, for a total of $5,000. The class of 1969 led all other Reunion classes in total giving, with $45,800. Our thanks go out to these classes and to all of our Reunion classes who gave so generously in honor of their Reunion.

Please visit www.vet.cornell.edu/alumni/reunion to see more pictures from Reunion 2014 and mark your calendars for **Reunion 2015: June 4-7**.

CORNELL VETERINARY STUDENTS FORM GROUP TO ADVANCE

Women's Leadership in Veterinary Medicine

By Carly Hodes

Striving to boost the number of female leaders in veterinary medicine, Cornell veterinary students have launched a student chapter of the Women's Veterinarian Leadership Development Initiative (WVLDI). WVLDI at Cornell will facilitate and encourage women to more fully participate in veterinary leadership roles in organized veterinary medicine as well as in corporate, government, private practice, and academic positions.

Women now make up the majority of veterinarians and around 80% of current veterinary student classes, yet across the field, from practice ownership to academia to industry organizations, few hold leadership roles. Only six deans of veterinary schools in the United States are female (20 percent), just one illustration of the "leaky pipeline" from which the percentage of women tends to decrease in more senior positions. The student chapter of WVLDI at Cornell hopes to help change this trend.

"We want to make it possible for veterinary students to succeed in any area they desire to pursue, and to help them develop the leadership skills necessary for that to happen," said Jordan Daniels '17, the president of WVLDI at Cornell.

Daniels and her fellow students formed the Cornell chapter immediately after participating in an innovative course at Cornell entitled Women's Leadership in Veterinary Medicine— the first ever course given anywhere on the subject. Two WVLDI founding directors led the course: Dr. Donald Smith, professor of surgery and dean emeritus at Cornell University College of Veterinary Medicine and Julie Kumble, MEd, acting Chief Executive Officer of the Women's Fund of Western Massachusetts.

Thirty five Cornell veterinary students, including three men, attended the six-hour symposium in March 2014. Smith and Kumble presented on leadership issues in organized veterinary medicine, clinical practice, industry, and academia.

They discussed obstacles women face and how they might be overcome, offering ideas for how the percentage of women leaders could be increased in the next few years, including ways to recognize and combat cultural biases and gender stereotypes, build confidence to overcome perfection complexes and run for office, and develop leadership competencies such as negotiation and public speaking.

"We aimed to raise the awareness about the gap in women's leadership, promote understanding of the need to have women in leadership positions, and share best practices from both within and outside veterinary medicine," said Smith. "Afterwards, as they talked amongst themselves and with the guest presenters, the students began to plan a Student Chapter of the WVLDI. The excitement and enthusiasm surrounding this effort are palpable."

WVLDI at Cornell strives to achieve leadership excellence in every sector of veterinary medicine that fully reflects the diversity of the profession and society. The organization will provide support for women seeking and enacting leadership, policy, and decision-making positions within all areas of professional veterinary activity and facilitate opportunities for students to learn leadership skills and develop mentoring relationships.

Since organizing in April 2014, the Cornell chapter has 54 members and three faculty advisors. It has cosponsored workshops on negotiations and the perfection complex, and plans to hold more events in the next academic year.

"It wasn't until I came to Cornell as an upcoming member of this women-dominated profession that I became interested in promoting gender equality," said Michelle Forella '17, vice president of Cornell WVLDI. "I have learned that the obstacles that I face are shared by other women, even in veterinary medicine. I hope that we can build the skills necessary to be leaders and to support our female colleagues as coworkers, employers, or policy makers."

In addition to Daniels and Forella, the leadership team includes Kat Schuhmacher, '15, secretary; Yuan Kang, '17, treasurer; and Becky Donnelly, '16, historian. Two other chapters have recently launched at Texas A&M University and the Virginia-Maryland Regional College of Veterinary Medicine.

CORNELL RUFFIAN EQUINE SPECIALISTS HELD ITS GRAND OPENING CELEBRATION ON MAY 7, 2014.

A referral hospital for horses located near the Belmont racetrack, CRES offers specialty referral services and emergency and critical care.

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From left: Drs. Alan Nixon, Michael Kotlikoff, Lisa Fortier, Samuel Hurcombe, Lorin Warnick, Norm Ducharme, and Gabriel Cook.

IN MEMORIAM

Since the last issue of 'Scopes, the College has been notified of the passing of the following:

Dr. Adrienne E. Barnard-Whitford '11, March 10, 2014
Dr. Mark Berens '87, December 1, 2013
Dr. Richard Bird '73, March 20, 2014
Dr. Thomas P. Cameron '54, November 28, 2013
Dr. Arthur H. Cutter III '69, March 26, 2014
Dr. Robert Ferber '39, December 12, 2013
Dr. Roland B. Fowler '57, February 6, 2014
Dr. George Hahn '56, February 1, 2014
Dr. Peter A. Huyler '56, January 3, 2014
Dr. Harmon C. Leonard '44, February 24, 2014
Dr. Peter S. MacWilliams '69, January 1, 2014
Dr. Reverdy L. Munson '64, March 20, 2014
Dr. Roy Sadovsky '69, July 6, 2013
Dr. Richard E. Shope Jr. '59, July 7, 2011
Dr. Florence Keith Williamson '44, October 11, 2007
Dr. Irving W. Wiswall '54, February 24, 2014
Dr. Theodore Zimmerman '43, December 2, 2013

classnotes

We are ending our Class Notes program due to low participation. Articles and news about alumni will appear in eVets, the College's e-newsletter. If you do not already receive eVets, please contact vetfriends@cornell.edu to be placed on our mailing list.

Memorial Giving **Program**

As fellow animal lovers, we are sometimes at a loss when comforting a friend who is saying goodbye to their companion. There is no more fitting tribute than celebrating that bond with a gift to support the education of the next generation of veterinarians as well as discoveries that lead to understanding the causes and treatments for disease. If there is a special animal or person you would like to remember or honor, consider a gift in his or her name to the Cornell College of Veterinary Medicine. Your thoughtfulness prompts a letter from Cornell to your friend or family member to let them know you are thinking of them and have made a memorial donation.

For more information or to make a gift, visit **www.vet.cornell.edu/gifts,** or call us at **607-253-3745.**

Cornell University
College of Veterinary Medicine

Box 39
Ithaca, NY 14853

Graduation Ceremony 2014